

## REMARKS

Applicant earnestly requests reconsideration and withdrawal of the rejection of Claims 1-28.

Claims 1-28 were rejected under 35 U.S.C. 102 (b) as being anticipated by J. Kubickova, et al., *Evaluation of Potent Odorants of Camembert Cheese by Dilution and Concentration Techniques*, Int. Dairy Journal 7, 65-70 (1997) and Preininger, et al., *Identification of the Character Impact Flavour Compounds of Swiss Cheese by Sensory Studies of Models*, Lebensm Unters Forsh, 202: 30-34 (1996).

Claim 1 of the present invention claims a cheese flavoring comprising varying amounts of volatile compounds having acetic-acid-like flavoring (Group 1), milk-like and creamy or cream-like or caramel-like flavoring (Group 2), fruity and flowery flavors (Group 3), strong, blue mold, and rind flavors (Group 4), fatty flavors (Group 5), animal flavors (Group 6), roasted, cocoa-like and smoky flavors (Group 7), vegetable-like flavors (Group 8), and mushroom-like or soft-cheese-like flavors (Group 9). In addition, Claim 1 discloses varying amounts of non-volatile flavoring components comprising compounds having the taste impression salty (Group 10), sour (Group 11), astringent or bitter (Group 12), sweet (Group 13), and glutamate-like (Group 14). Claim 2, which is dependent on Claim 1, claims cheddar cheese flavoring varying the parts by weight of the compounds disclosed in Claim 1. Claim 3, which is dependent on Claim 1, claims parmesan flavoring varying the parts by weight of the compounds disclosed in Claim 1. Claim 4, which is dependent on Claim 1, claims the addition of yeast extract and/or milk-fat or vegetable fat products in order to enhance flavoring. Claim 5, which is dependent on Claim 1, claims in the compounds having acidic and acetic-acid-like flavoring as being selected from the group consisting of carboxylic acids having from 2 to 16 carbon atoms. Claim 6, which is dependent on Claim 5, claims in the carboxylic acids as being selected from the group consisting of acetic acid, propionic acid, butyric acid, valeric acid, caprylic acid, caproic acid, lauric acid and myristic acid. Claim 7, which is dependent on Claim 1, claims in the compounds having milk-like and creamy flavoring or cream-like or caramel flavoring as being selected from the group consisting of saturated and unsaturated  $\delta$ - and  $\gamma$ -lactone having 6 to 14 carbon atoms, hydroxy ketones and

diketones having 4 to 8 carbon atoms and aromatic aldehydes. Claim 8, which is dependent on Claim 7, claims in the saturated and unsaturated  $\delta$ - and  $\gamma$ -lactones, as being selected from the group consisting of jasmine lactone,  $\delta$ -decalactone,  $\delta$ -octalactone,  $\delta$ -undecalactone,  $\delta$ -dodecalactone, and  $\delta$ -tetradecalactone, and  $\gamma$ -caprolactone,  $\gamma$ -heptalactone,  $\gamma$ -octalactone,  $\gamma$ -decalactone, and  $\gamma$ -dodecalactone. Claim 9, which is dependent on Claim 1, claims in the compounds having fruity and flowery flavoring, as being selected from the group consisting of ethyl, propyl, and butyl esters of unbranched and branched carboxylic acids having 2 to 12 carbon atoms, saturated, unsaturated, unbranched and branched alcohols and aldehydes. Claim 10, which is dependent on Claim 9, claims in the ethyl, propyl, and butyl esters of unbranched and branched carboxylic acids having 2 to 12 carbon atoms, as being selected from the group consisting of ethyl propionate, ethyl butyrate, ethyl caprylate, ethyl caprate, ethyl caproate, ethyl isobutyrate, ethyl isovalerate, and also propyl caprylate, and butyl acetate. Claim 11, which is dependent on Claim 9, claims in the saturated, unsaturated, unbranched and branched alcohols, as being selected from the group consisting of 2-pentanol, isoamyl alcohol, hexanol, methyl-2-methylbutyrate, 3-methyl-2-butenol and 2-phenylethyl alcohol. Claim 12, which is dependent on Claim 9, claims in the aldehyde, as being selected from the group consisting of benzaldehyde, phenylacetaldehyde, and (E)-2-phenylbutenal. Claim 13, which is dependent on Claim 1, claims in the compounds having strong flavoring, blue mold flavoring, and rind flavoring, as being selected from the group consisting of 2-alkanones and 2-alkanols having 5-12 carbon atoms. Claim 14, which is dependent on Claim 13, claims in the 2-alkanones, as being selected from the group consisting of 2-pentanone, 2-heptanone, 2-octanone, 2-decanone, and 2-nonenone. Claim 15, which is dependent on Claim 13, claims in the 2-alkanols, as being selected from the group consisting of 2-heptanol and 2-nonal. Claim 16, which is dependent on Claim 1, claims in the compounds having fatty and creamy flavoring, as being unbranched aliphatic aldehydes and alcohols having from 7 to 14 carbon atoms and 2-alkanones having 6 to 16 carbon atoms and esters of long-chained unbranched fatty acids. Claim 17, which is dependent on Claim 1, claims in the compounds having animal flavoring, as being selected from the group consisting of nitrogen compounds, sulfur compounds, and branched fatty acids. Claim 18, which

is dependent on Claim 1, claims in the compounds having roasted flavoring and cocoa-like flavoring and also smoky flavoring, as being selected from the group consisting of pyrazines which are monosubstituted or polysubstituted (mono-substituted to trisubstituted) with lower alkyl groups, branched aldehydes having 4 to 5 carbon atoms, phenols and alkylfurans. Claim 19, which is dependent on Claim 1, claims in the compounds having vegetable-like flavoring, as being selected from the group consisting of lower-alkyl-substituted thio compounds (1 to 4 carbon atoms), thiols and thioaldehydes. Claim 20, which is dependent on Claim 1, claims in the compounds having the taste impression salty, as being salts having cations selected from the group consisting of sodium, ammonium, potassium, magnesium, and calcium and anions such as chloride, hydrogen phosphate, dihydrogen phosphate, acetate and sulfate. Claim 22, which is dependent on Claim 1, claims in the compounds having the taste impression sour, as being inorganic hydroxides. Claim 23, which is dependent on Claim 1, claims in the compounds having astringent, bitter notes, as being selected from the group consisting of L-amino acids, peptides, and unsaturated fatty acids having 16 to 22 carbon atoms. Claim 24, which is dependent on Claim 1, claims in the compounds having the taste impression sweet, as being selected from the group consisting of carbohydrates and L-amino acids. Claim 25, which is dependent on Claim 1, claims the compounds having a glutamate-like taste impression, as being selected from the group consisting of L-amino acids and peptides based on amino acids. Claim 26 claims a food product containing a cheese flavoring, which mirrors Claim 1. Claim 27, which is dependent on Claim 26, claims a cheddar cheese flavor which varies the parts by weight of the components disclosed in Claim 26. Claim 28, which is dependent on Claim 26, claims a parmesan cheese flavor which varies the parts by weight of the components disclosed in Claim 26.

The Examiner stated that Kubickova, et al. teaches the different components of the presently claimed cheese flavor and the relative amounts of each component. (See Office Action at page 2).

Kubickova, et al. actually discloses the aroma profile of Camembert cheese. (See Tables 1-4) Kubickova, et al. does not provide any qualitative or quantitative details of nonvolatile, taste-active compounds. The compounds identified in this paper are volatile and contribute to the aroma of the cheese, not the taste properties of the cheese (non-volatile components).

The rejection of Claims 1-28 should be withdrawn because Kubickova, et al. does not disclose non-volatile, cheese taste components. Claims 1-28 can be distinguished from Kubickova, et al. because these claims provide for "salty", "sour", "bitter", "sweet" and "glutamate-like" taste impressions (Groups 10-14). These taste properties were not studied, nor were they identified in the Kubickova paper.

In addition, Claims 1-28 disclose compounds having "animal" flavors (Group 6). Although these compounds are volatile and contribute to the cheese aroma, Kubickova, et al. does not disclose these "animal" flavors as a volatile component.

Kubickova, et al. describes the flavoring substances typically used for soft cheeses and those substances represent only a portion of those disclosed in the cheese flavoring of the present invention.

Preininger, et al. discloses the odor and taste contributors of swiss cheese. The rejection of Claims 1-28 should be withdrawn because Preininger, et al. does not disclose all of the volatile odorants of Claims 1-28.

Namely, Preininger, et al. does not disclose the strong, blue-mold and rind flavors (Group 4) in the presently claimed invention. Additionally, Preininger, et al. does not disclose the fatty or creamy flavors of Claims 1-28 (Group 5). As in Kubickova, et al. above, Preininger, et al. does not disclose the animal flavors (Group 6) of the presently claimed invention. Preininger, et al. does not disclose the roasted, cocoa-like, or smoky flavors (Group 7) of Claims 1-28. Lastly, Preininger, et al. does not disclose the mushroom-like and soft-cheese flavors of Claims 1-28.

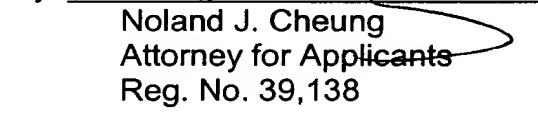
Kubickova, et al. and Preininger, et al. do not discuss or even remotely suggest the presently claimed cheese flavor and food product. Claims 1-28 disclose a novel combination of chemical components, which serve to mimic the taste of "cheese". The list of groups of substances (1 to 14) and the corresponding

quantities mentioned are absolutely necessary for the production of the flavoring according to the present invention. These groups and quantities, disclosed in the present invention, are not present in the above references.

In view of the preceding remarks, allowance of the claims is respectfully requested.

Respectfully submitted,

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